

Substitute Specification

What is claimed is:

1. A method of producing a reticular structure, said method comprising the steps of:

- a) placing a reticulated foam pre-structure into a first container having a lid;
- b) infiltrating said foam pre-structure with a refractory mold material;
- c) solidifying said refractory material to form a refractory mold;
- d) withdrawing said refractory mold along with said foam pre-structure from said first container;
- e) removing said foam pre-structure from said refractory mold;
- f) pre-heating said refractory mold and placing said mold into a second container;
- g) infiltrating said refractory mold with a molten substance to form a reticular structure;
- h) after said molten substance has solidified, withdrawing said reticular structure from said second container and removing said refractory mold from said reticular structure.

8 The method of producing a reticular structure according to claim 1, wherein, after the step of withdrawing said refractory mold from said first container, said foam pre-structure protrudes from said refractory mold.

9. The method of producing a reticular structure according to claim 1, wherein, subsequent to the step of infiltrating said refractory mold with said molten substance, said method includes the step of casting a solid jacket on said refractory mold with said molten substance.

10. The method of producing a reticular structure according to claim 1, wherein said foam pre-structure has a surface and wherein, subsequent to step a), said method includes a step of modifying said surface by roughening.

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11. The method of producing a reticular structure according to claim 1, wherein said foam pre-structure has a surface and wherein, subsequent to step a), said method includes a step of modifying said surface by texturing.

12. The method of producing a reticular structure according to claim 1, wherein said reticular structure has a structure surface and wherein, subsequent to step h), said method includes a step of modifying said structure surface by applying a coating to said structure surface.

13. A device for producing a reticular structure according to claim 1, wherein said second container has a container wall and at least one opening for pouring in said molten substance, and has an interior space that is sufficiently large to provide a gap between said pre-heated refractory mold filled with said molten substance and said container wall.

14. The method of Claim 1, wherein said reticular structure is a metallic reticular structure and said molten substance is a molten metallic substance comprising materials from a group consisting of metals, metal alloys, ceramics and cermet.

15. The method of Claim 1, wherein said foam pre-structure is made of a polyurethane foam.

16. The method of Claim 1, wherein said refractory mold material comprises a gypsum plaster suspension.

17. The method of Claim 1, wherein said first container is made of a refractory material.

[illegible]